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EXAMINER
KIM, STEVEN S

ART UNIT	PAPER NUMBER
3685	

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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

PTOL-90A (Rev. 04/07)

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>3</u> MONTH(S) OR THIRTY (30) DAYS,
WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed
  after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
  Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any
  earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on <u>08 April 2009</u>.

2a)☐ This action is **FINAL**.   2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is
closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) <u>1-12</u> is/are pending in the application.

    4a) Of the above claim(s) <u>9-10</u> is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) <u>1-8,11 and 12</u> is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☒ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a)☒ All b)☐ Some * c)☐ None of:

        1.☒ Certified copies of the priority documents have been received.

        2.☐ Certified copies of the priority documents have been received in Application No. _____.

        3.☐ Copies of the certified copies of the priority documents have been received in this National Stage
           application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1)☒ Notice of References Cited (PTO-892)

2)☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3)☒ Information Disclosure Statement(s) (PTO/SB/08)
    Paper No(s)/Mail Date <u>2/9/06</u>

4)☐ Interview Summary (PTO-413)
    Paper No(s)/Mail Date. _____

5)☐ Notice of Informal Patent Application

6)☐ Other: _____

DETAILED ACTION

1.   This office action is in response to the Applicant's reply dated April 8, 2009.

Claims 1-12 are pending. Claim 9 has been amended. Claims 9-10 are withdrawn.

Restriction/Election Acknowledgement

2.   The Applicant's election on claims 1-8 and 11-12 with traverse in the reply on

April 8, 2009 is acknowledged. Claims 10-11 are withdrawn from further consideration

pursuant to 37 CFR 1.142(b) as being drawn to a nonelected group(s).

3.   In response to Applicant's traverse of the restriction, the inventions,

amendments, are distinct each from the other because of the following reasons:

Inventions I and II are related as subcombinations disclosed as usable together in a

single combination. The subcombinations are distinct if they do not overlap in scope

and are not obvious variants and if it is shown that at least one subcombination is

separately usable. In the instant case, subcombination I has separate utility such as a

method of charging for usage while subcombination II has a separate utility such as a

method of computer network managing including regulation and apparatus state. See

MPEP § 806.05(d). Accordingly, claims 1-8 and 11-12 drawn to a method of time

charging, e.g. usage charge, classified in class 705, subclass 52 while claims 9-10

drawn to method of network managing, e.g. monitoring usage and regulating, classified

in class 709, subclass 223.

4.   For the reason above, the Examiner maintains the restriction.

Priority

5.   Acknowledgement is made of applicant's claim for foreign priority under 35

U.S.C. 119(a)-(d). The certified copy has been filed in the instant application, filed on

1/03/2009.

Claim Objections

6.   Claims 1-8 and 11-12 are objected to because of the following informalities: The

claims recite broadband access server and access server interchangeably (see

preamble, step a) and step b in claim 1). The Applicant is advised to use the same

terminology throughout the claims. Appropriate correction is required.

Specification

7.   A substitute specification in proper idiomatic English and in compliance with 37

CFR 1.52(a) and (b) is required. The substitute specification filed must be accompanied

by a statement that it contains no new matter.

Admitted Prior Art

8.   According to the MPEP (608.01(c)(2)), Applicant's Background of the Invention describes to the extend practical the state of the prior art known to the Applicant. Therefore, in light of Applicant's "Background" the following is considered as admitted prior art:

- Conventional detection methods of the IDLE state are in such way that a timer is directly configured such that data flow of a user is detected periodically at each interval so as to decide whether an increment between the user's data flow and the last check point is less than a threshold; that if the increment is not greater than the threshold, the user is considered offline, otherwise the user is considered online or downloading;

- Disclosure where the time interval for IDLE detection is about 5 minutes and techniques of reducing of the time interval for efficiency and better accuracy.

Claim Rejections - 35 USC § 101

9.   35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

10.   Claims 1-8 and 11-12 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter. Based on Supreme Court precedent (See also Diamond v. Diehr, 450 U.S. 175, 184 (1981); Parker v. Flook, 437 U.S. 584, 588 n.9 (1978); Gottschalk v. Benson, 409 U.S. 63, 70 (1972); Cochrane v. Deener, 94 U.S. 780, 787-88 (1876)) and recent Federal Circuit decisions, a §101

process must (1) be tied to another statutory class (such as a particular apparatus) or (2) transform underlying subject matter (such as an article or materials) to a different state or thing. In addition, the tie to a particular apparatus, for example, cannot be mere extra-solution activity. See In re Bilski, 88 USPQ2d 1385 (Fed. Cir. 2008).

11.   An example of a method claim that would not qualify as a statutory process would be a claim that recited purely mental steps.

12.   To meet prong (1), the method step should positively recite the other statutory class (the thing or product) to which it is tied.   This may be accomplished by having the claim positively recite the machine that accomplishes the method steps. Alternatively or to meet prong (2), the method step should positively recite identifying the material that is being changed to a different state or positively recite the subject matter that is being transformed.

13.   In this particular case, claims 1-8 and 11-12 fail prong (1) because the "tie" (e.g. setting, starting, establishing, defining, detecting) is representative of extra-solution activity. Additionally, the claim(s) fail prong (2) because the method steps do not transform the underlying subject matter to a different state or thing.

Claim Rejections - 35 USC § 112

14.   The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

15.   Claims 1-8 and 11-12 are rejected under 35 U.S.C. 112, second paragraph, as

being indefinite for failing to particularly point out and distinctly claim the subject matter

which applicant regards as the invention.

16.   The claims are generally narrative and indefinite, failing to conform with current

U.S. practice. They appear to be a literal translation into English from a foreign

document and are replete with grammatical and idiomatic errors. Some of the

examples include:

- Claims 1-8 and 11-12 recite "time charging", i.e. for time charging, starting
  time charging, stopping time charging (see claims 1, 6, 7, 11, 12). The term,
  "time charging" is indefinite because the specification does not clearly
  redefine the term. For example, is "time charging" in the preamble of claim 1
  indicates a charging for usage while "time charging" in step b) of claim 1
  indicates the time itself.

- Claim 1 recites "b) starting time charging to the users by instruction of the
  access server to the users". The limitation is unclear, relationship of the
  recited step and the components, e.g. users, instructions, access server.

- Claim 1 recites "recording data flow of the user in the access server" in step
  c). However, the claim recites "users" prior to the limitation. Hence it is
  unclear to which user the limitation is referring. Moreover, "user in the access
  server" is unclear.

- Claim 1 recites "d) defining a number of elements in the circular link list as a
  multiple of the outer time to the inner time in the access server". The

relationship of circular link list / outer time / (and/or) inner time to the access
server is unclear.

- Claim 1 recites "d) detecting the data flow of the user according to the inner
  time in the access server". The relationship of detecting / data flow / user /
  (and/or) inner time to the access server is unclear.

- Claim 1 recites "until a difference between data flow newly detected and the
  content rerecorded in the head pointer is not more than the flow threshold".
  The data flow newly detected is unclear. The content rerecorded in the head
  pointer is unclear.

- Claim 1 recites "the broadband access server" in step a). The claim also
  recites "the access server" in the subsequent steps, e.g. step b). It is unclear
  whether "the access server" is referring to "the broadband access server".

- Claim 2 recites "when the circular link list is not full". The claim limitation of
  circular link list is not full is unclear.

- Claim 2 recites "meanwhile", which is narrative form.

- The term "sooner after" in claim 1 is a relative term which renders the claim
  indefinite. The term "sooner after" is not defined by the claim, the
  specification does not provide a standard for ascertaining the requisite
  degree, and one of ordinary skill in the art would not be reasonably apprised
  of the scope of the invention.

- The claimed steps are missing essential steps, e.g. claims recites when
  conditions but fails to claim determination steps relating to conditions.

- Step e) in claim 1 is indefinite in that the step recites "data flow newly
  detected and the content rerecorded" are unclear.

- Claims recite inner time and outer time. It is unclear what inner and outer
  time to one of ordinary skill in the art.

17.   Above listing represents mere examples and do not represent comprehensive list
of unclear limitations. The Applicant is advised to review the claims in its entirety for
correction(s).

Claim Rejections - 35 USC § 103

18.   The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all
obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set
> forth in section 102 of this title, if the differences between the subject matter sought to be patented and
> the prior art are such that the subject matter as a whole would have been obvious at the time the
> invention was made to a person having ordinary skill in the art to which said subject matter pertains.
> Patentability shall not be negatived by the manner in which the invention was made.

19.   Claims 1-8 and 11-12 are rejected under 35 U.S.C. 103(a) as being unpatentable
over Admitted Prior Art (supra) methods of the detecting IDLE state in such way that a
timer is directly configured such that data flow of a user is detected periodically at each
interval so as to decide whether an increment between the user's data flow and the last
check point is less than a threshold and that if the increment is not greater than the
threshold, the user is considered offline, otherwise the user is considered online or
downloading. Further the Admitted Prior Art discloses where the time interval for IDLE
detection is about 5 minutes. Moreover, the Admitted Prior Art discloses reducing of the
time interval, i.e. from 5 minutes to less, for efficiency and better accuracy.

20.   Admitted Prior Art does not disclose using a circular link list to perform the above

method. However, circular link list is old and well known programming technique.

Hence, it would have been obvious to one of ordinary skill in the art, e.g. one of ordinary

skill in the art of computer and programming, to use various programming technique,

including a circular link list which yield predictable results. "The claimed improvement is

no more than simple substitution of one known element for another, or mere application

of known technique to piece of prior art ready for improvement" - *Ex parte Smith*, 83

USPQ2d 1509 (Bd. Pat. App. & Int. 2007).

21.   Furthermore, in regards to claims 2 and 3, the Applicant is directed to the use of

conditional language. The recited "when" do not move to distinguish the claimed

invention from the cited art. These phrases are conditional limitations with the noted

"when" step not necessarily performed. Accordingly, once the positively recited steps

are satisfied, the method as a whole is satisfied -- regardless of whether or not other

steps are conditionally invoked under certain other hypothetical scenarios. (See: In re

Johnston, 77 USPQ2d 1788 (CA FC 2006); Intel Corp. v. Int'l Trade Comm'n, 20

USPQ2d 1161 (Fed. Cir. 1991); MPEP §2106 II C).

Conclusion

22.   Any inquiry concerning this communication or earlier communications from the

examiner should be directed to STEVEN KIM whose telephone number is (571)270-

5287. The examiner can normally be reached on Monday - Thursday (7:30AM -

5:00PM).

23.   If attempts to reach the examiner by telephone are unsuccessful, the examiner's

supervisor, Calvin Hewitt can be reached on (571)272-6709. The fax phone number for

the organization where this application or proceeding is assigned is 571-273-8300.

24.   Information regarding the status of an application may be obtained from the

Patent Application Information Retrieval (PAIR) system. Status information for

published applications may be obtained from either Private PAIR or Public PAIR.

Status information for unpublished applications is available through Private PAIR only.

For more information about the PAIR system, see http://pair-direct.uspto.gov. Should

you have questions on access to the Private PAIR system, contact the Electronic

Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a

USPTO Customer Service Representative or access to the automated information

system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/S. K./
Examiner, Art Unit 3685

/Calvin L Hewitt II/

Supervisory Patent Examiner, Art Unit 3685